

## Introduction

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Many requests for spreadsheet support are the result of using complicated formulas and solutions to solve simple day-to-day problems. For more efficient and effective solutions, use the pivot table, a tool for combining, comparing, and analyzing large amounts of data easily. Using pivot tables, you can view different summaries of the source data, display the details of areas of interest, and create reports, whether you are a beginner, an intermediate, or an advanced user. In addition you can create a pivot chart to view a graphical representation of the data in a pivot table.

## Database preconditions

To work with a pivot table, you need a list of raw data, similar to a database table, consisting of rows (data sets) and columns (data fields). The field names are in the first row above the list.

The data source could be an external file or database. For the simplest case, where data is contained in a Calc spreadsheet, Calc offers sorting functions that do not require the pivot table.

For processing data in lists, Calc needs to know where in the spreadsheet the list is. The list can be anywhere in the sheet, in any position. A spreadsheet can contain several unrelated lists.

Calc recognizes your lists automatically. It uses the following logic: Starting from the cell you have selected (which must be within the list), Calc checks the surrounding cells in all four directions (left, right, above, below). The border is recognized if the program discovers an empty row or column, or if it hits the left or upper border of the spreadsheet. This means that the described functions can only work correctly if there are no empty rows or columns in the list. Avoid empty lines (for example for formatting). You can format the list by using cell formats.



### Tip

To make sure that Calc automatically recognizes a list correctly, check that there are no empty rows or empty columns within the list.

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If you select more than one cell before creating a pivot table, then Calc's automatic list recognition logic is not applied. Instead, Calc assumes that the pivot table is to be created using exactly the cells that you selected.



### Tip

Always select only one cell before initiating creation of a pivot table. This allows Calc to automatically determine the full scope of your data list.

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A relatively common source of errors is to inadvertently declare a list by mistake and then to sort that list. If you select multiple cells—for example, a whole column—then the sorting mixes up the data that should be together in one row.

In addition to these formal aspects, the logical structure of the list is also very important.



### Note

Calc lists must have the *normal form*; that is, they must have a simple linear structure.

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When entering the data, do not add outlines, groups, or summaries. Here are some mistakes commonly made by inexperienced spreadsheet users:

- You made several unnecessary sheets; for example, a sheet for each group of articles. In this case, analyses are only possible within each group.